01.010.03.01 Climate Change Risk Assessment

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Ecology & Environmental Services

Project name:	Galileo Depot (West Country Waste Management)	Project No:	01/010/03/01
Site/work location:	Galileo Close, Plympton, Plymouth PL7 4JW		

Climate Change Risk Assessment: **South west England river basin district**
Name: **West Country Waste Management**
Permit reference number: **Not Applicable**

Item	Potential changing climate variable	Impact (A)	Before Mitigation			Mitigation (E)	After Mitigation		
			Likelihood (B)	Severity (C)	Risk (B x C) (D)		Likelihood (F)	Severity (G)	Residual risk (F x G) (H)
1	Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now.	Temperature expansion and stress of plant, pipework and fittings.	2	3	6	Conduct regular inspection and preventative maintenance of site and plant or equipment	2	2	4
2	Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present.	a. Increase risk of pipework and other external equipment freezing. b. Reduced performance of biological treatment	a. 2 b. 2	a. 3 b. 2	a. 6 b. 4	a. Conduct regular inspection and preventative maintenance of site and plant or equipment b. Monitor performance of treatment system and quality of treated effluent regularly.	c. 2 d. 2	a. 2 b. 2	a. 4 b. 4
3	The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity).	a. Surface water drainage system overloaded. b. Wash-out of surface fines into adjacent Tory Brook.	c. 3 d. 2	c. 2 d. 2	c. 6 d. 4	a. Monitor rainfall and surface water drainage system performance and update surface water management plan as required. Regularly inspect and maintain drainage system b. As for a.	a. 2 b. 2	a. 2 b. 2	a. 4 b. 4
4	Average winter rainfall may increase by 41% on today's averages.	Surface water drainage system overloaded.	3	2	6	Monitor rainfall and surface water drainage system performance and update surface water management plan as required.	2	2	4
5	Sea level could be as much as 0.6m higher compared to today's level.	Inland site. Low impact expected.	2	2	4	No mitigation required as very low risk. Score under 5. Monitor permanent change to local river levels and plan for flood defences as appropriate	2	2	4
6	Drier summers, potentially up to 45% less rain than now.	No negative impact expected	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1
7	At its peak, the flow in watercourses could be 40% more than now, and at its lowest it could be 80% less than now.	Site does not discharge or extract from watercourse. No negative impact expected	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1